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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/361,963 07/28/99 SATO

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005514 MMC1/0228
FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK NY 10112

EXAMINER

GERIKE, M

ART UNIT	PAPER NUMBER
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2879

DATE MAILED:

02/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/361,963	Applicant(s) SATO ET AL.	
	Examiner Matthew J. Gerike	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 October 2000.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> | 20) <input type="checkbox"/> Other: |

Response to Arguments/Amendments

The amendment has been fully considered yet fails to overcome the previous art rejections outlined in paper number 5. See below.

Claims 9-15 stand rejected based on the prior art of reference. Claims 9 and 13 are no longer rejected under 35 USC 112.

Applicant's arguments filed 10/23/00 have been fully considered but they are not persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Further, 37 CFR 1.111(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections." In this case, applicant has failed to clearly point out patentable novelty and failed to show how the amendment avoids the combination of references applied against the claims.

The disclosure of the reference is enabling with respect to instant claims 9-15. Sato et al. (U.S. 5,952,775) discloses among other embodiments an image forming apparatus comprised of a first plate including electron-emitting devices, a second plate disposed to face the first plate, and a plurality of spacers disposed between the first and second plate, with the spacers being disposed substantially parallel with each other and extending in a longitudinal direction. In addition, an outer frame hermetically surrounds

a space between the first and second plates, and a getter is disposed within the space and proximate to a side of the outer frame that is positioned across an imaginary extension of the spacers in the longitudinal direction. See figures 2-12.

Things clearly shown in reference patent drawings qualify as prior art features, even though unexplained by the specification. In re Mraz, 173 USPQ 25 (CCPA 1972).

Specifically, claims 9-15 of the application recite the same inventive image forming apparatus comprised of a first plate including electron emitting devices, a second plate disposed to face the first plate, and a plurality of spacers disposed between the first and second plate, with the spacers being disposed substantially parallel with each other and extending in a longitudinal direction. In addition, an outer frame hermetically surrounds a space between the first and second plates, and a getter is disposed within the space and proximate to a side of the outer frame that is positioned across an imaginary extension of the spacers in the longitudinal direction wherein the getter is positioned such that gas within the image forming apparatus can be easily and efficiently captured, and thus a vacuum within the space can be well maintained.

In response to Applicant's argument that Jones includes additional structure not required by Applicant's invention, it must be noted that Jones discloses the invention as claimed. The fact that it discloses additional structure not claimed is irrelevant. Thus arguendo, Banno and Jones have been combined in the manner proposed in the previous Office Action, thus combining to teach and suggest Applicant's claimed invention. Further, Banno discloses a getter (#7) placed in the manner recited in

Art Unit: 2879

independent Claim 9. The reconsideration of the rejection under 35 USC 103 is acknowledged but is not granted.

Conditions for patentability, novelty and loss of right to patent, stated in 35 USC 102, may have relevance as to disclosure which must be found in prior art to find obviousness of invention under section 103; in determining that quantum of prior art disclosure which is necessary to declare applicant's invention "not novel" or "anticipated" within section 102, test is whether reference contains an enabling disclosure; this test applies to issues under section 103. *In re Hoeksema* (CCPA) 158 596.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit: 2879

Claims 9-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 5,952,775. Although the conflicting claims are not identical, they are not patentably distinct from each other because all of the claimed structure and subject matter of the application is fully disclosed and claimed in the patent.

The following table shows the common subject matter of the application and patent.

Application 09/361,963	Patent 5,952,775	Discussion of Differences
Claim 9	Claim 1	In the Patent, the first plate is referred to as a rear plate; the second plate is referred to as a face plate.
Claim 10	Claim 1	No differences, same subject matter.
Claim 11	Claim 1	No differences, same subject matter.
Claim 12	Claim 1	No differences, same subject matter.
Claim 13	Claim 1	No differences, same subject matter.
Claim 14	Claim 1	No differences, same subject matter. Surface conduction electron emitting devices are also known as field emission type electron emitting devices. Also, all charged conductors produce an electric field.
Claim 15	Claim 1	No differences, same subject matter.

Art Unit: 2879

There is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banno et al. (U.S. 5,525,861) further in view of Jones et al. (U.S. 5,663,608).

Banno discloses an image forming apparatus (figure 3) comprising a first plate (#1, substrate) including electron emitting devices (#2, field emission type electron emitting device), a second plate (39, rear plate), an outer frame (35, & #6, outer frames) hermetically surrounding a space between the first plate and the second plate and a getter (#7, getter), as recited in applicant's claim 9, yet fails to disclose a plurality of spacers.

Jones discloses a field emission display device with a spacer (#98, spacer assembly). Hence it would have been obvious to one skilled in the art to combine a plurality of spacers of Jones with the apparatus of Banno to construct an image forming apparatus with high resolution due to lessened impurities absorbed by the getters, which is resistant to implosion.

Banno discloses an image forming apparatus wherein the getter is disposed outside a region in which the electron emitting devices are formed (see figure 3) as recited in applicant's claim 10.

With respect to claim 11, Banno discloses the claimed invention except for the spacers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to position the getter within a region surrounded by the imaginary extension of two of the spacers, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Banno discloses an image forming apparatus wherein the getter is a ring shaped getter (column 6, line 38), as recited in applicant's claim 12.

Banno discloses an image forming apparatus wherein the electron emitting devices are field emission devices (see figure 2, column 5, lines 36-56) as recited in applicant's claim 14.

Banno discloses an image forming apparatus wherein the electron emitting devices are surface conduction electron emitting devices (see figure 5A and 5B, column 7, lines 24-25) as recited in applicant's claim 15.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Gerike whose telephone number is (703) 308-8991. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3594 for regular communications and (703) 305-3594 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0596.



Matthew J. Gerike
Patent Examiner
February 20, 2001



ASHOK PATEL
PRIMARY EXAMINER